

## CLAIMS

What is claimed is:

1. A method of covering an opening in a laboratory container with aluminum foil to provide a heat-resistant and solvent-resistant closure, comprising the steps of:  
    providing a preformed aluminum foil cup of sufficient size to cover said opening, wherein said cup is free of any substance that could contaminate said container, and wherein said cup comprises a bottom wall and a raised perimeter sidewall continuous with, and surrounding said bottom wall;  
    inverting and placing said cup over said opening;  
    optionally adjusting the shape and diameter of said cup so as to fit over said opening, and  
    compressing the sidewall of said cup to a friction fit around said opening.
2. The method of claim 1 wherein said cup is sterile.
3. The method of claim 2 wherein said cup has been sterilized by a process selected from the group consisting of radiation sterilization and gas sterilization.
4. The method of claim 1 wherein the aluminum foil used to fabricate said cup is between approximately 0.0003 inches and approximately 0.002 inches thick.

5. The method of claim 4 wherein said aluminum foil is between approximately 0.0005 and approximately 0.001 inches thick.

6. The method of claim 1 wherein the shaping of said cup is produced using a mechanical forming die that utilizes a forming means selected from the group consisting of pressure, heat, and a combination thereof.

7. The method of claim 1 wherein said cup is an open dish-shaped structure selected from the group consisting of tubs, trays, cups, bowls, canisters and other vessels that are free of any structural feature that would interfere with the use of said cup as a covering for a laboratory container opening.

8. The method of claim 1 wherein the surface shape of said sidewall is selected from the group including pleated, fluted, crinkled and dimpled.

9. The method of claim 1 wherein the length measured across the largest dimension of said bottom wall is between 1 inch and 6 inches.

10. The method of claim 1 wherein the height of said perimeter wall is between 0.25 inches and 2.5 inches.

11. The method of claim 10 wherein said height is between 0.5 inches and 1.5 inch.

12. The method of claim 1 wherein said cup is manufactured without using a lubricant that could contact and contaminate said cup or multiple cups in a nested stack of similar cups.

13. The method of claim 1 wherein said container is selected from the group consisting of a beaker, a flask, a bottle, a graduated cylinder, a test tube, a centrifuge tube, a cuvette, a vial, and a scoop.

14. A sterile assembly comprising a multiplicity of stacked sterile aluminum foil cups whose length as measured across the largest dimension of the bottom wall of said cups is between 1 inch and 6 inches, wherein said cups are fabricated from aluminum foil between approximately 0.0003 inches and approximately 0.002 inches thick, and wherein each of said cups in the stack is interleaved with a removable sterile paper liner sheet that allows said cups to be manually retrieved from the stack one at a time,

15. The assembly of claim 14 wherein said assembly is, furthermore, hermetically sealed in a container selected from the group consisting of a container with reclosable lid, a reclosable plastic bag, and a shrink-wrapped plastic film.

16. The assembly of claim 15 wherein said assembly has been radiation sterilized.

17. An assembly comprising a laboratory container covered by the aluminum foil cup of claim 1.

18. The assembly of claim 17 wherein said assembly has been sterilized.